

years)—language becomes a primary tool for learning. Since the child in this stage is a concrete, nonevaluative thinker who takes things as they are or as they look, many specific first-hand, manipulative experiences are needed. Abstract concepts should be avoided. During this stage, according to Piaget, labels or words become linked to experiences; although they are abstract symbols, they stand for concrete things. Children at this stage of thinking believe what they see and have difficulty understanding another's perspective. The third stage is the concrete operational (7–11 years), and the fourth is formal operational (11–15+ years). Because of Piaget's work, learning is viewed as an active, constructive process in which students seek organization and meaning in their worlds. The curriculum is designed with concrete experiences presented first, followed in later years with more abstract and detailed ideas.

✱ Vygotsky's (1962; 1978) basic assumption is that children's knowledge, ideas, attitudes, and values are developed from interaction with others. The social context of the child's learning therefore becomes significant; children learn when they collaborate with others, discussing and talking about the "how" and "why" of things. Also then, for Vygotsky, the role of language is critical in cognitive development and learning. It is the means for expressing ideas and asking questions and providing concepts for thinking.

In still another theoretical view, Abraham Maslow (1968; 1970) focused on human potential and proposed that all persons strive to reach the highest within themselves. His theory also asserts that children learn best when their physical needs are met and they feel a sense of psychological safety and security. Curriculum then understands and respects these basic needs in order to be most effective.

The behaviorist theory emphasizes the roles of environmental conditions (stimuli) and overt behaviors (responses) in learning. The behaviorist teacher seeks to arrange the environment to structure and help children learn. The basic assumption of this theory, whose primary architect was B. F. Skinner (1904–1990), is that children learn through the effects of their own intentional

responses. According to this theory (Skinner, 1953), consequences determine whether a person will repeat a particular behavior that led to the consequences. The effect of these consequences may serve as a punishment or a reward.

Although we recognize the complexity of learning, we propose a variety of ingredients that are all a part of the process by which young children acquire knowledge, meaning, and understanding: (1) experiences, (2) choices and decisions, (3) curiosity and questioning, (4) communication and talking, (5) modeling and scaffolding, (6) stories, and (7) interaction with others. Delineating these specific ingredients is not to say that there are not other ingredients in the learning mix. From our experiences, observations, and reading we feel these are some of the key ingredients and need the attention and understanding of early childhood educators. Through these ingredients children can acquire process skills such as observing, inferring, reasoning, rationalizing, exploring, and classifying, in addition to developing the abilities to think or thoughtfully approach ideas and problems. While studying these ingredients discussed in the following section, keep in mind the earlier discussion on the need to avoid pushing academics, thereby eliminating unnecessary pressure from teaching too much, too soon, too fast.

THE EXCITEMENT OF EARLY CHILDHOOD LEARNING

One need only follow the daily paths of children and experience their enthusiasm for learning to realize that the acquisition of knowledge is exciting. There is a spontaneity in children as they gain new understandings: Their bodies move, their faces smile, their eyes dance with anticipation. This zest for learning is often lost as an individual matures. A new discovery made at any age should stimulate an intrinsic sense of fulfillment within oneself. The challenge is, therefore, to preserve and foster the curiosity and inquisitiveness of the young child. They need active, experiential learning that provides them with many opportunities for questioning. Children's own questions

can serve as springboards to curriculum study and guide the learning (Clark, 1997; Dillon, 1988; Eliason, 1996).

Much of the learning taking place in today's classrooms and early childhood centers results from planned curriculum experiences and activities based on children's needs. However, opportunities for learning abound in the child's environment beyond that which is teacher prepared. *Incidental or spontaneous learning* is constantly taking place as the child gives to and receives from the existing resources of the world. "Sometimes these incidental, in-between, hang-loose, unstructured, spontaneous times together are our best times. Perhaps these times will be remembered longest and with the most fondness by the child, and by ourselves" (Chenfeld, 1997, 475). Vygotsky (1978) described spontaneous

concepts as those the child discovers in contrast to school-learned concepts that emerge from the social experience the school provides. It is refreshing to observe, as in the following illustration, a young child in the process of discovery during a spontaneous learning experience. *Jalana painted with horizontal strokes of alternating black and white paint that had been placed at the easel. As the two colors ran together, her eyes expressed discovery, and she exclaimed, "I made gray!"*

Experiences

Children in the stage of early childhood need a strong and sound base of experiences that will provide a foundation for later learning. Children in this stage develop meaning and understanding as a result of concrete, real experiences (NAESP, 1990). They need a variety of experiences around a single notion. One idea should be approached from different angles, remembering that a single experience is not usually enough to build a reliable intellectual concept. They need experiences that encourage them to manipulate, explore, use their senses, build, create, discover, construct, take apart, question, and ultimately to understand the world in which they are living. Children use their experiences to provide the basis for interpreting, conceptualizing, and categorizing into meaningful ideas. They must be active, engaged, and involved in their learning (Sylvester, 1995).

Children do not think the same way as adults or older children do, and they learn in many different ways (Elkind, 1982; 1996). They absorb information through concrete experiences involving smelling, tasting, hearing, seeing, and touching; they are sensory learners. Children are constantly absorbing meaning by observing their environment. As important as the sense of sight is, one must realize that children also need numerous other sensory experiences. Activities involving all the senses provide first-hand experiences from which the child selects and incorporates information into the development of concepts.

Young children learn and construct their knowledge through many different experiences



Programs for computers in the early childhood classroom must be developmentally appropriate and must be used only as supplements to, not substitutes for, a well-planned curriculum.

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with the objects, people, and events of the world in which they live. As these odd bits of knowledge collected through this variety of experiences are combined, meaning results. These become the bits and pieces that make up children's "maps" or understanding of their world and dictate to them how to behave. The larger the stock of experiences, the more meaning they develop and the more elaborate is their map, and ultimately the clearer their thinking.

Participation provides concrete knowledge from which clear understanding evolves, as illustrated in the following anecdote: *Mrs. Harris, in her Head Start center, told the children a story about a donkey. When she asked what a donkey looked like, she realized that the children had never actually seen one. The next day when school began, Mrs. Harris confidently walked into the classroom, leading behind her a reluctant donkey—one which the children could experience first-hand.*

Learning and information must be congruous with what has already been understood (Gullo, 1992). Teachers must start where the learner is. When a notion is understood by the child, it is stored in the mind to be added to the collection of other concepts. In further experiences, the child calls on the material already compiled to help understand the new ideas. Teachers need to accept the individualized approach to education by being cognizant of their responsibility to make the information they teach compatible with what each child already knows. To provide for each child at each point in development the most stimulating circumstances is their challenge; this is developmentally appropriate practice.

Children make generalizations as they build relationships among concepts by relying on information previously accumulated. Without a broad base of direct encounters from which to generalize, children cannot move toward abstract reasoning. Before certain conceptual strategies can be learned, there are specific levels of cognitive development that must be achieved. Learning needs to be continuous; new material encountered must correspond with skills previously assimilated. Children can understand only

those things which past knowledge has prepared them to grasp.

Choices and Decisions

Child-centered or child-oriented learning engages the student in the learning process more deeply because the child takes more responsibility for his or her own learning. The call for child-centered learning is becoming ubiquitous, with many suggesting that this teaching practice is a key ingredient in improving educational productivity (Chard, 1992; 1994; Garmston & Wellman, 1994; Glasser, 1997; Heckman, Confer, & Hakim, 1994; Kohn, 1997; Levin, 1994; Lopez & Schultz, 1996; Perrone, 1994; Smith, 1993; Wolk, 1994). Allowing children to control as well as to construct their own learning is the central perspective in the constructivist philosophy of teaching (Schifter, 1996; Zahorik, 1995). Glasser (1997) suggests that a primary need in school reform is to focus on the students and their needs rather than on the curriculum. He proposes that students work at their own pace and be given choices rather than being coerced into their work. There should be at least one block of time in the school day in which children can decide what to do (Kohn, 1993a). It has also been suggested that students would be more engaged in their learning if teachers would give them choices of topics to be studied or at least choices about the specific ideas and questions within a general topic to be explored (Kohn, 1993a).

One of the key events in the "project approach" as outlined by Chard (1992; 1994) is the involvement of the children in directing the course of the learning during a project study. The children's questions guide the learning and what is to be studied, and they are involved in all phases of the project. Their past experiences are used as relevant information, and their choices and interests determine what they do throughout the project.

When projects and activities are child chosen, they stem from the child's own interests and therefore have purpose. Projects often are di-

rected by questions the students want answered. "When children are allowed to choose what to explore, they become intrinsically motivated—more than happy to work hard and strive for the highest quality" (Wolk, 1994, 43). When teachers capitalize on this ingredient in the learning process, their role changes from filling the vessel to facilitating learning. Teachers, rather than telling and asking questions, watch, listen, challenge, offer suggestions, or lend support; they become guides and resources (Wolk, 1994).

Curiosity and Questioning

Curiosity, another important element in early cognitive development, impels a child to reach out to the environment. An adult can help foster children's curiosity by encouraging them to explore, answering their questions, and being an example of a curious person. Children's surroundings should be kept rich with concrete, sensory, manipulative experiences that allow them to satisfy their curiosity through their senses.

Most people are born with an intrinsic drive to learn about and explore their world. Curiosity is the drive to learn. To touch, observe, listen, think about, and evaluate the things around them is the way young children learn. To take apart and put together, to explore and look for alternatives, to try and fail and try again and again until they succeed are all ways a child learns through curiosity. The purpose of schooling is "to stimulate, capitalize on, and sustain the kind of motivation, intellectual curiosity, awe, and wonder that a child possesses when he or she begins schooling" (Sarrison, 1995, 85).

Learning opportunities, many of them resulting from formal teaching and planning, saturate the child's environment. Much more significant, however, are the "teachable moments," when a child's curiosity and initial interest in a subject provide fertile ground for the planting and nurturing of clear understandings. Adults must be alert to the ever-questioning and investigating young mind and prepared to assist the child in furthering knowledge and comprehension of the

surrounding world. Having correctly interpreted ideas, the child is then prepared and eager to reach toward new galaxies of understanding.

Since the time of Plato and Socrates, questioning has been considered an important part of learning. To ask "why?" and "how?" questions of those around them is a means for coming to know and learn. When children question, this leads to reflection, wonder, wanting to know, grappling with ideas and issues, and to answers. An environment for student questioning is created when learners are trusted with asking their own questions, given the opportunity to question, expected to frame questions, and given the time it takes to formulate them (Dillon, 1988). Much has been written about student-centered curriculum, and student questions can be the means for designing this kind of curriculum (Commeyras, 1995; Heckman, Confer, & Hakim, 1994). However, in most classrooms today, early childhood or otherwise, teacher questioning is the norm and there is a paucity of questioning by students (Morgan & Saxton, 1991). To encourage meaning making, we must change what happens in classrooms so that more of children's learning will be based on questions that they themselves ask rather than on questions asked by the teacher.

Early childhood educators should be especially interested in the questions young children generate, for they are tenacious questioners before they enter formal schooling and ask many of the questions raised at home. However, something happens when they begin their formal schooling that inhibits their natural questioning, and they learn to answer the teacher's questions but not to ask. Perhaps they are conditioned early in their education to *know* information rather than to *question* ideas. In a recent study (Eliaison, 1996), it was found that kindergarten teachers felt positive toward student questioning but the gap between theory and practice was wide. Student questions in this study were seldom verbally invited, and few students in the study raised questions, particularly those of an inquisitive nature. It appears that even in early childhood classrooms, the authority for knowledge and learning rests

with the teacher. If we desire child-centered early childhood classrooms, we need to discipline our teaching behavior to expect, welcome, wait for, and support inquiry from children and use their questions as a springboard for planning projects, activities, and learning episodes.

Communication and Talking

Another ingredient in learning is communication or talking. As young children talk they provide the adult or teacher with a window to their level of comprehension. In addition, as the adult responds and communicates with the child, it furthers the development of concept understandings. Therefore, communication is a two-way process in which there is a constant flow of information and questions between adults and children. Concepts broaden as they are explored and discussed in the context of another person's ideas and experiences. This is the great value of cooperative learning; we learn from one another through intercommunication.

Simply because an experience has allowed a child to become familiar with an idea, it must not be assumed that the correct information has been assimilated. In the quest for meaning, a child often misunderstands; thus an adult or peer needs to listen constantly to determine the functioning level of discernment. Through communication and feedback from the teacher, a vital consideration in providing information, the child learns to focus on particular stimuli.

In the following examples, it is evident that communication from the child is also an important aspect in the learning process.

A child who had been encouraged to keep her shoes on commented to her teacher at the end of the day: "I wore my shoes all day today, but sometimes I wore my bare feet!"

During an excursion, various drums were shown to the children. It was explained that the kettledrum was so named because of its resemblance to a large pot or kettle that might be used on the stove for cooking. Later, as the concepts were being reviewed and re-

inforced, the children were shown a picture and asked the name of the kettledrum. Peter confidently replied, "Oh, that's a stove drum!"

Talking, reinforcement, and review are constantly needed to correct, strengthen, and expand a child's understandings. As adults prepare to be receptive to the child's communications, they must be willing to listen (not just hear) and observe (not just see). Teaching entails much more than disseminating information. It involves listening and observing not only for the obvious but also for the subtle ways in which the child makes perceptions and understandings known.

Questioning is significant to learning, and it should be encouraged as a part of communication. The child asks a question, and the teacher listens to determine whether the information has been correctly interpreted. Then the teacher either reinforces and praises the child for the right information or corrects the misconception. Child questions may lead the discussion in a direction unplanned by the teacher and provide feedback for concepts not understood.

Following a story and discussion about watermelons, the children observed a real watermelon that was quite small. Joanna asked, "Why don't you water that thing?" and then pointed out that the teacher should "dump it in water." The teacher wisely sustained the inquiry and through feedback from the children learned that many of them thought that if they put the watermelon in water it would grow bigger. After a lengthy, unplanned discussion, the children learned the valuable notion that because the watermelon had already been picked from the vine it could not grow any more.

Listening and responding to a child's questions are accepted as important aspects of communication. Since children learn through asking questions, their questions should not be stifled but rather sustained and seen as an asset to thinking and problem solving.

Through communication received from the child, many misconceptions are identified. These misunderstandings must be clarified and corrected. Only then is a child able to obtain further knowledge of concepts in the continuing search

for meaningful relationships in the environment. An example of a child's misconception follows.

The children had spent a week exploring the theme of the dairy cow. A number of concepts and a variety of activities had been included as the children explored the theme. On the last day of the theme study the children visited a dairy farm. The children observed some cows being machine milked and watched the milk flowing through clear, plastic tubing. As one group was leaving a child asked the teacher, "How can they tell when the cow is full?"

A child's questions and comments provided the necessary communication feedback to the teacher about that child's understanding. Additional experiences may need to be planned and concepts retaught, perhaps in different ways, to correct misconceptions or to extend meaning.

Many of the phrases and words in our common language usage are idioms. Until the child has experiences that will clarify meanings, the phrases are interpreted incorrectly and the literal definitions are assumed. Examples include *just pulling your leg*, *all tied up*, *on the tip of my tongue*, *all ears*, *swing shift*, *graveyard shift*, and *tongue-tied*. In addition, a word or phrase that has more than one meaning often causes misunderstanding for the child who is familiar with only one definition for that word. Examples include *fork in the road*, *catching a cold*, *pinch hitter*, *broken up*, *broken down*, *rat race*, and *wring your neck*.

Children often become needlessly concerned over statements adults make because they interpret them by relying on the information previously stored and understood, as the following two illustrations show.

Two-year-old Christy became upset every time her parents mentioned their forthcoming flight to New York, where they would visit Christy's grandparents. On one of these occasions when they were discussing their plans, Christy exclaimed, "But I don't know how to fly!"

The children had observed a rooster in their classroom for several days, and they anxiously waited for it to crow. Each day just after the children left, the rooster would crow. One day while they were outside playing, the rooster began to crow. One of the teachers hurried to an-

other teacher and suggested that she take the children inside because the rooster was "crowing its head off." A child who was nearby asked with alarm, "You mean his head is coming off?"

Children often develop misconceptions through misunderstanding a word, especially when the word is one with which they are unfamiliar, as observed in the following illustrations.

As a group of children was leaving for an excursion to ride an elevator, a passerby asked Mike where they were going. "We're going to ride an alligator," he replied.

After being told that he would be going on an excursion that day, James informed the other children that they would be going on an "explosion."

Kyle unwrapped a birthday present, observed the toy, and said, "I wonder where the 'constructions' are."

Important ingredients in learning during early childhood are to listen and observe well enough that we have a clear understanding of young children's interpretations. Then the challenge as teachers seek to build increased meaning and knowledge is to communicate carefully, clarify concepts misunderstood, and extend and expand upon children's understandings.

Modeling and Scaffolding

Modeling is another aspect of learning that is important in early childhood education. The teacher models both concepts that are to be understood and correct language usage. In addition, teachers model attitudes; enthusiasm is caught, not taught. All teachers should model an enthusiasm and excitement for learning. Prosocial behaviors are often best learned when they are modeled or when children can observe them in others. Other behaviors and attitudes that impact learning are also modeled for the young child. Teachers who are caring, questioning, and thoughtful learners, for example, are more likely to have students with these same academic qualities. One need only watch and listen to young children for a short time to understand the power of learning through modeling or imitation. Skills and behaviors are

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particularly learned through imitation or modeling. To tie a bow based on a word description of that skill would be very difficult, but when the skill is modeled, if the child is developmentally ready, with practice it can be learned.

If a child is praised for work, efforts, or a particular behavior, the praise serves as a reinforcement for that child. In addition, other children will desire to receive the praise, so they too will try to accomplish the work or skill. This is observational learning; children observe others and then model or imitate that person's efforts, skills, or work. We all model things we have seen or heard, and our behavior, thinking, and language are all influenced by this important ingredient of learning.

Scaffolding is adult assistance or support to young children as they build a firm understanding. It is building bridges to higher levels of thinking and learning (Berk & Winsler, 1995). Scaffolding consists of giving clues, reminders, encouragement, support, breaking problems or challenges into steps, or anything else that allows the child to grow in independence as a learner. It is always built on the child's previous knowledge (Zahorik, 1995). Scaffolding includes the following goals and components (Berk & Winsler, 1995):

- joint problem solving
- intersubjectivity (two participants with different understandings begin a task and then finish with a shared understanding)
- warmth and responsiveness
- keeping the child in the ZPD (zone of proximal development)
- promoting self-regulation

In assisted learning or scaffolding, the teacher or adult watches and listens to see how or what he or she might do to support the children in their learning journey.

Stories

There are many meaningful and remarkable benefits of stories in our lives; they open minds to understanding, touch hearts, and capture

imaginings. Stories help children make sense and meaning of the things they are taught. Smith (1990, 62–63) writes in descriptive terms about the connection between stories and thinking:

Thought flows in terms of stories—stories about events, stories about people, and stories about intentions and achievements. The best teachers are the best storytellers. We learn in the form of stories. We construct stories to make sense of events. . . . The brain is a story-seeking, story-creating instrument.

When ideas and concepts are taught with stories, they are remembered. Events, facts, and bits of information in and of themselves are not meaningful and not remembered, but in the context of the story they become understood, intelligible, and retained. Children, and all people, express themselves through sharing the stories of their lives.

Stories have a powerful effect because they not only impart ideas, concepts, and information and describe people, events, and places, but they also engage emotions. Through stories we exchange experiences and feelings with one another and we learn. Stories clarify what is being taught and enable children to make sense and meaning of that which the teacher is trying to teach. Storytellers weave a story in their own words, create images, and stir emotions, but the listeners or readers are also weaving their individual designs from the characters, situations, and actions in the story. The listeners or readers bring their own experiences and imaginings into play to make meaning.

Interaction with Others

Children learn from one another, and this learning includes both cognitive and affective perceptions. When children learn in small groups from their peers, it satisfies their needs more than when they learn alone (Glasser, 1990). Many academic and prosocial skills are the outcome of peer interaction. Children's analytical and academic

skills are sharpened, and they develop both oral and listening abilities. They learn to be sensitive to others and understand another person's point of view. Because no student in the group succeeds without the cooperation and support of the other group members, interdependence and bonding result from this type of learning.

Children in today's society will be required to be thoughtful and to have technical, relationship, and communication skills. The most effective way to develop these kinds of competencies is in small groups, where the focus is on a team effort, on helping and learning from one another, as opposed to a competitive approach.

Summary

Developmentally appropriate early childhood education means providing a curriculum and environment that is right for the developmental needs of children. The developmental needs and characteristics of age groups and individual children need to be understood, and learning activities and goals should be based on the knowledge that children in early childhood are ready for learning through their senses, utilizing experiences, materials, and concrete activities.

Teachers need to assess young children to guide and plan for their learning and to communicate in a knowledgeable way with parents. Using documentation in our assessment benefits the children, the school, and the parents (Fleege, 1997; Helm, Beneke, & Steinheimer, 1997). However, any assessment should be used for the benefit of children and should never be used to keep students out of a program or retain them in a particular grade. In early childhood, alternative strategies such as observations, interviews, and portfolios are used to determine needs, guide the curriculum, and evaluate the program.

Play is an integral part of the early childhood environment and curriculum. It is imperative that teachers recognize the inherent values in play, and organize an environment that reflects these values

Cooperative learning fosters higher achievement in children, especially when groups are rewarded for individual achievement (Kagan, 1992). In other words, children achieve the most when their learning is characterized by the team members' having a positive, interdependent goal with individual accountability (Johnson, Johnson, & Holubec, 1987).

Children learn in cooperative groups when they talk and share with one another and their talk is directed toward academic concepts and achievement. When peers work to support, recognize, and build one another up, enhanced learning occurs and self-esteem is nurtured.

and plan a curriculum based on play. Play is developmentally right for children 3 to 8 years of age; it is what they need, based on our understanding of their developmental characteristics. Play "offers the child the opportunity to make sense out of the world by using available tools. . . . Through play, the child comes to understand the world and the adult comes to understand the child" (Chaillé & Silvern, 1996, 274). Not only is play fun, "but it is serious business that pays big dividends to its eager, young investors" (Diffily & Morrison, 1996, 4).

The physical environment is an important ingredient in determining the feeling tone of the classroom or center. It shows the children what they will learn, how they should behave, and what they should feel about their education. It influences how they act, what they think, and how they feel. Early childhood educators must recognize their responsibility in creating a physical environment that has positive influences on the learning and growth of the children who use that environment. Toys and materials must be properly selected, used, stored, and cared for. They too influence the child's learning, behavior, and feelings. The time spent creating an appropriate and inviting environment that offers many opportunities for play will be well worth the effort.

In a developmentally appropriate program or classroom, we recognize that young children learn in a different way than older children or adults. The ingredients of learning, experiences, choices and decisions, curiosity and questioning, communication and talking, modeling and scaffolding, stories, and peer interactions, are significant considerations leading to meaning and understanding. There is an excitement

and enthusiasm in learning that should be preserved and fostered throughout an individual's lifetime. However, we have cautioned against inappropriate, pressurized early learning. We propose that children want to learn, and that successful developmentally appropriate teaching begins with and builds upon concepts and ideas that are relevant during the early years of childhood.

Student Learning Activities

1. Describe characteristics of developmentally appropriate practice (DAP). Visit at least three different early childhood classrooms or centers and evaluate them on the basis of DAP. What have you learned?
2. Why do you think play is important? Visit an early childhood classroom and evaluate the kinds of and opportunities for play.
3. Using the criteria for room arrangement suggested in this chapter, draw a sample room arrangement. Describe the intended age group. Tell why you included the specific areas. Does the arrangement support a particular curriculum theme?
4. Visit an early childhood classroom and evaluate its physical setup. Are there different areas of play in the room? Describe each section of the room. (You may also wish to draw a plan of the room to facilitate your description.) Describe any interest centers.
5. Visit with several early childhood teachers about the forms of assessment they use. How do they use them? Are the examples developmentally appropriate? What suggestions would you have for these teachers?
6. Visit a toy store and evaluate three early childhood toys that might be purchased for use in a classroom, using the criteria suggested in this chapter.
7. Using the criteria suggested in this chapter for selecting appropriate learning materials for

young children, visit an early childhood classroom and make a list of the teacher-made learning materials. Then make a checklist similar to the one that follows:

Equipment	Appropriate	Not Appropriate	Reason
Shape stacking cans		X	Sharp edges
Color lotto game	X		
Manipulative boards (lacing, buttoning, zipping)	X		
Dominoes		X	Not durable

8. Develop a list of materials that could be collected from your home and the homes of children in your classroom to be used in an early childhood situation, for example: padlock and keys; old camera; empty spools; materials for counting, sorting, grouping, ordering, and pattern making (e.g., shells, stones, marbles, straws, washers, canceled stamps).
9. Organize a list of teacher-made materials to begin working on. You may wish to organize your list into areas such as materials for teaching about colors, shapes, people, and textures. Also

include science, music, and language and literacy materials. Use your list as an action, to-do list!

10. Make at least three teacher-made learning materials.

11. Write a short essay on what you believe are the significant ingredients in early child-

hood learning. Compare your beliefs to those of prominent theorists and also the authors of this text.

12. Do you believe most early childhood teachers provide developmentally appropriate learning? Why or why not?

Suggested Resources

A day at the beach: Barney and the backyard gang. The Lyons Group. (Video)
Organizing free play. Modern Talking Pictures. (Film)

Performance assessment in the classroom. The Video Journal of Education. (Video)
Portfolio assessment. The Video Journal of Education. (Video)